



RF and mmWave Circuit Design

OCTAVE INSTALLATION

dr. Carlos Mendes Jr
prof. dr.-ir. Peter Baltus
prof. dr. Marion Matters

Department of Electrical Engineering, Integrated Circuits Group


coursera

TU/e

Download of Octave

1. [Download Octave](#)
 - [Octave Documentation](#)

Installation of Octave

 GNU Octave

AboutBugsDonateDownloadGet InvolvedNewsSupport/HelpDocs

BSD

Executable versions of Octave for BSD systems are provided by the individual distributions. Both [FreeBSD](#) and [OpenBSD](#) have Octave packages. These packages are created by volunteers and the Octave project has no control over that process.

Microsoft Windows

Note: All installers below bundle several **Octave packages** so they don't have to be installed separately. After installation type `pkg list` to list them.
[Read more.](#)

- Windows-64 (recommended)
 - [octave-5.2.0_1-w64-installer.exe \(~ 300 MB\)](#) [signature](#)
 - [octave-5.2.0_1-w64-7z \(~ 300 MB\)](#) [signature](#)
 - [octave-5.2.0_1-w64.zip \(~ 530 MB\)](#) [signature](#)
- Windows-32 (old computers)
 - [octave-5.2.0_1-w32-installer.exe \(~ 275 MB\)](#) [signature](#)
 - [octave-5.2.0_1-w32-7z \(~ 258 MB\)](#) [signature](#)
 - [octave-5.2.0_1-w32.zip \(~ 447 MB\)](#) [signature](#)
- Windows-64 (64-bit linear algebra for large data)
Unless your computer has more than ~32GB of memory and you need to solve linear algebra problems with arrays containing more than ~2 billion elements, this version will offer no advantage over the recommended Windows-64 version above.
 - [octave-5.2.0_1-w64-64-installer.exe \(~ 286 MB\)](#) [signature](#)
 - [octave-5.2.0_1-w64-64-7z \(~ 279 MB\)](#) [signature](#)
 - [octave-5.2.0_1-w64-64.zip \(~ 490 MB\)](#) [signature](#)

All Windows binaries with corresponding source code can be downloaded from <https://ftpmirror.gnu.org/octave/windows/>.

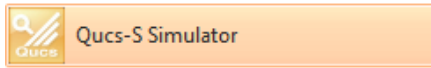
Octave is free software under the [GNU General Public License](#).

Copyright © 1998-2020 John W. Eaton. This work is licensed under a [Creative Commons Attribution-NoDerivatives 4.0 International License](#). [Get the page sources](#).

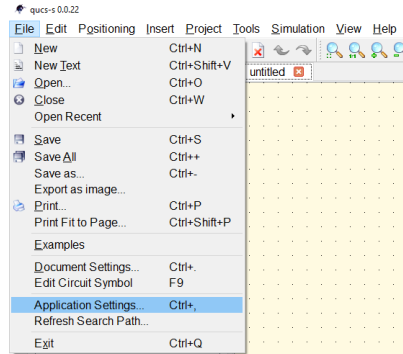
Click here to download

Integration of Octave into Qucs-S

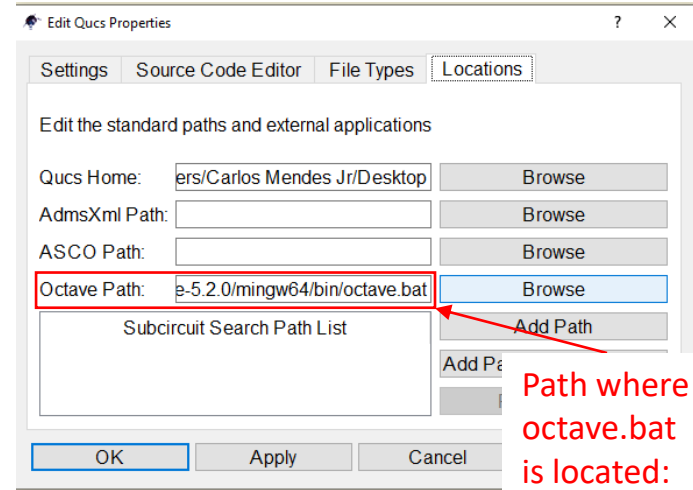
1. From *Start* menu open Qucs-S Simulator



2. Go to *File* menu and open *Application Settings*



3. Select *Locations* tab and *Browse* the Octave path executable

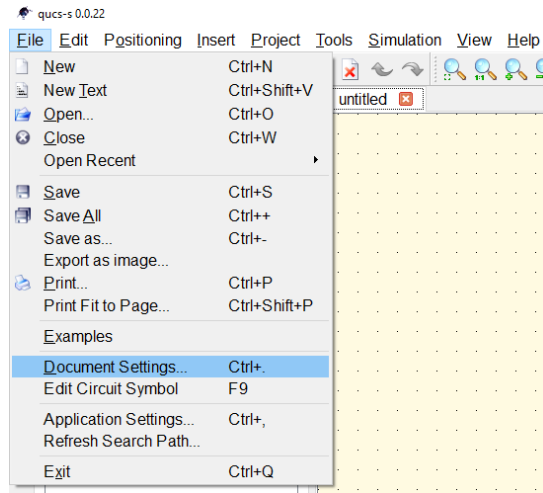


Path where
octave.bat
is located:

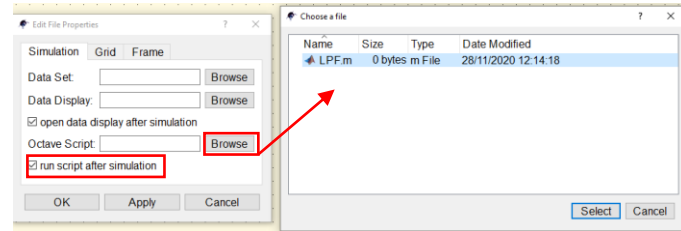
C:/Program Files/Octave/Octave-5.2.0/mingw64/bin/octave.bat

Integration of Octave into Qucs-S

4. Go to *File* menu open *Document Settings*



5. On *Simulation* tab make sure to check the *run script after simulation* box and to *Browse* the Octave file you want to add.



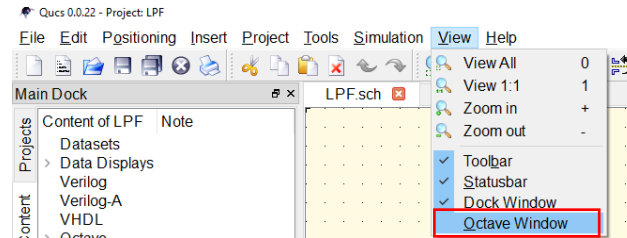
OBS.: The octave file you want to add has to be inside the Qucs-S project folder, e.g., the LPF_prj we previously created.

Integration of Octave into Qucs-S

6. Open the Octave and make sure to add the Qucs handling functions correctly.

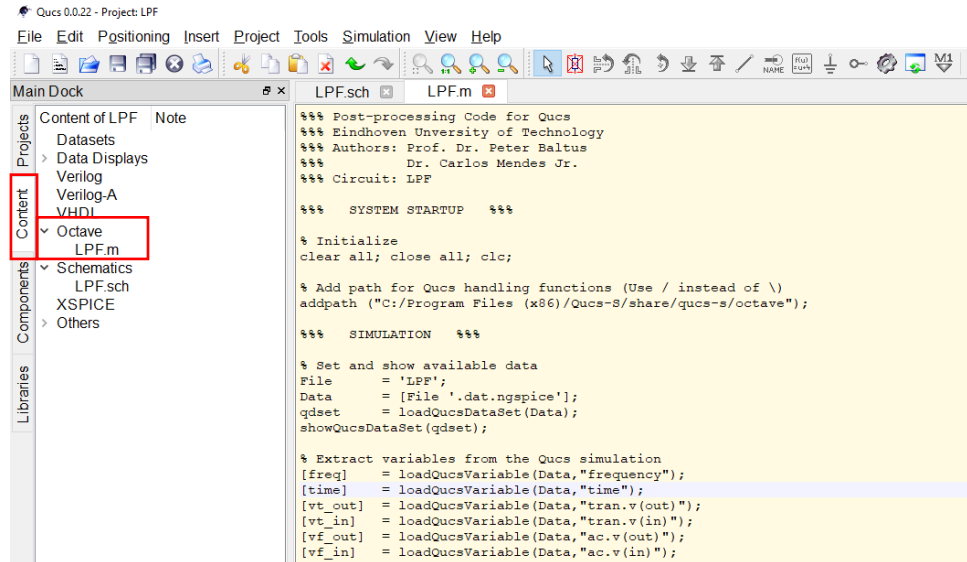
```
1  %%% Post-processing Code for Qucs
2  %%% Eindhoven University of Technology
3  %%% Authors: Prof. Dr. Peter Baltus
4  %%%           Dr. Carlos Mendes Jr.
5  %%% Circuit: LPF
6
7  %%%  SYSTEM STARTUP  %%%
8
9  % Initialize
10 clear all; close all; clc;
11
12 % Add path for Qucs handling functions (Use / instead of \)
13 addpath ("C:/Program Files (x86)/Qucs-S/share/qucs-s/octave");
14
15 %%%  SIMULATION  %%%
16
17 % Set and show available data
18 File = 'LPF';
19 Data = [File '.dat.ngspice'];
20 qdset = loadQucsDataSet(Data);
21 showQucsDataSet(qdset);
```

7. It is possible to see Octave window inside Qucs-S by enabling *Octave Window* under *View* menu.



Integration of Octave into Qucs-S

8. It is even possible to edit Octave file inside Qucs-S. Under *Content* tab, just double click the Octave file.

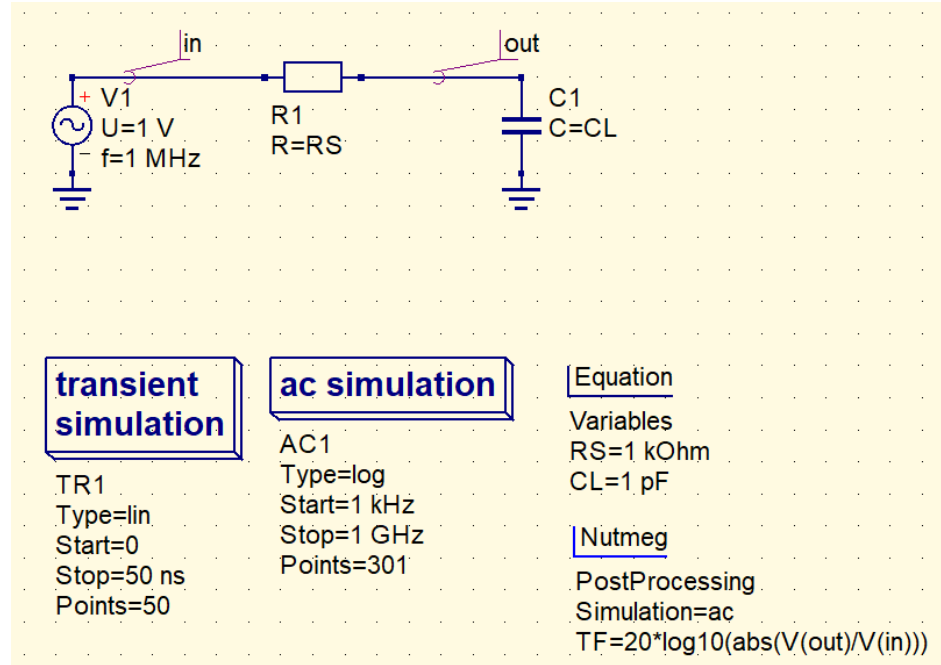


Simulation example

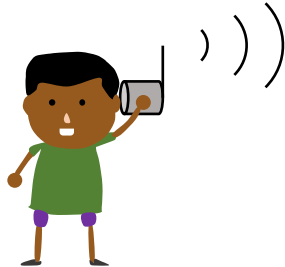
Low Pass Filter Simulation

- Transient
- AC

Post Processing in Octave



Thanks for watching!



C.A.M.Costa.Junior@tue.nl

P.G.M.Baltus@tue.nl

